



Cooper Farms' Wind VW

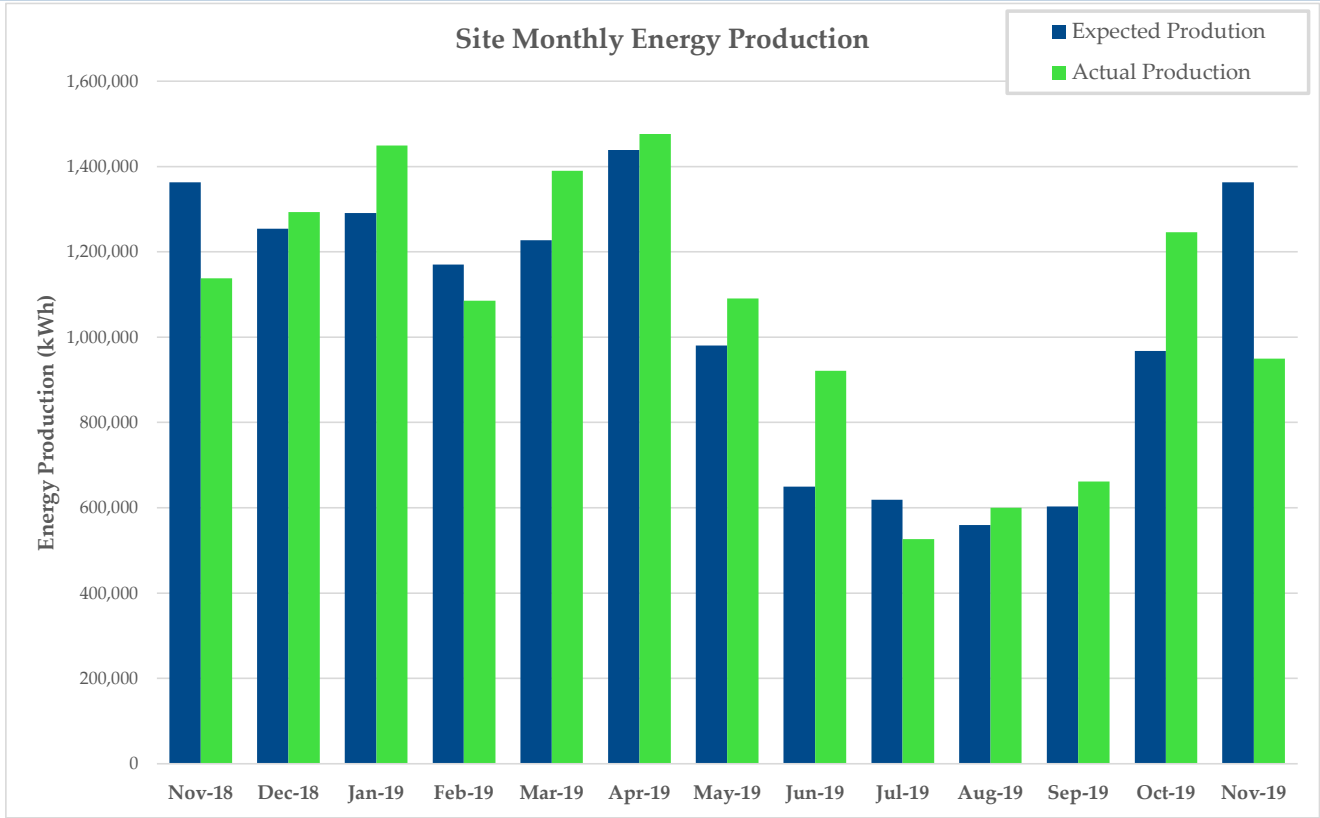
Van Wert, OH

A. Site Energy Production Summary

	Energy Production (kWh)				
	Site		By Turbine		
	Expected Production	Actual Production	WTG 1	WTG 2	WTG 3
Nov-18	1,362,692	1,138,070	381,630	373,480	382,960
Dec-18	1,254,397	1,293,550	427,830	426,560	439,160
Jan-19	1,290,968	1,449,160	491,430	475,470	482,260
Feb-19	1,170,349	1,085,536	358,334	356,884	370,318
Mar-19	1,227,217	1,390,286	471,222	450,690	468,374
Apr-19	1,438,497	1,476,210	495,410	493,970	486,830
May-19	980,450	1,090,450	368,640	351,610	370,200
Jun-19	649,158	921,230	304,100	301,760	315,370
Jul-19	618,687	526,810	179,780	167,330	179,700
Aug-19	559,508	600,600	200,850	197,710	202,040
Sep-19	603,085	661,430	222,160	210,200	229,070
Oct-19	967,926	1,245,578	439,840	409,100	396,638
Nov-19	1,362,692	949,912	322,750	306,104	321,058
Production 2019 (ytd) (kWh)	10,868,538	11,397,202	3,854,516	3,720,828	3,821,858
Total Production (kWh)*	12,122,935	12,690,752	4,282,346	4,147,388	4,261,018
Capacity Factor*	32.19%		*Value calculated over the last 12 months		

B. Site Energy Production Graph

November-2019



Monthly Report

November-2019



C. Safety Summary

	This Month	Project Cumulative
Recordable Incident(s)	0	0
Near Miss(es)	0	0

D. Planned Maintenance Events

Date	Event	Duration (hr)	Turbine
February-2020	Goldwind 7.5 Year Maintenance	~8	WTG 1
February-2020	Goldwind 7.5 Year Maintenance	~8	WTG 2
February-2020	Goldwind 7.5 Year Maintenance	~8	WTG 3

E. Actual Maintenance Events

Date	Event	Planned/Unplanned	Duration (hrs)	Turbine
11/2/-3/2019	Plant Shutdown	Unplanned	30.85	WTG 1, 2, 3
11/14/2019	Grid Fault	Unplanned	5.89	WTG 1, 2, 3
11/27/-28/2019	High Wind Event	Unplanned	28.19	WTG 1, 2
11/27-28/2019	High Wind Event	Unplanned	26.92	WTG 3

F. Turbine Availability & Downtime

Availability	This Month	Year To Date
WTG 1	100.00%	98.70%
WTG 2	100.00%	98.88%
WTG 3	100.00%	100.00%
Avg	100.00%	99.19%

Downtime (hr)	This Month	Year To Date
WTG 1	64.93	464.22
WTG 2	64.93	478.44
WTG 3	63.78	387.81
Total	193.64	1330.47

G. Wind Speed & Capacity Factor

Wind Speed (mph)	This Month	2019 Annual
WTG 1	12.80	13.72
WTG 2	12.44	12.47
WTG 3	12.75	12.91
Estimated	15.58	13.39

Capacity Factor (%)	This Month	2019 Annual
WTG 1	29.88%	32.06%
WTG 2	28.34%	30.95%
WTG 3	29.73%	31.79%
Low Estimate	41.95%	28.72%

H. Report Notes and Comments